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ABSTRACT

This study investigated the effects of early field experiences on preservice teachers' teacher efficacy (TE) beliefs, a cognitive process in which teachers construct beliefs about their capacity to help students learn. The study also explored the effects of early field experiences on preservice teachers' TE beliefs in terms of their early field experience ratings, their perceived cooperating teachers' TE beliefs, and their teaching anxiety levels. Participants were 52 sophomore-level undergraduate students majoring in elementary and early childhood education, all of whom were randomly assigned to two local elementary schools. Participants made a total of six field experience trips. Data were collected before and after the early field experience. Data collection involved the Teacher Efficacy Scale, the Teaching Anxiety Scale, the Perceived Cooperating Teachers' Efficacy Scale, and the Field Experience Rating scale. Results indicated that after early field experiences, general teaching efficacy (GTE) was significantly lower, whereas personal TE was significantly higher. There was a relationship between student teachers' TE beliefs and their early field experience settings, their perceived cooperating teachers' TE beliefs, and their teaching anxiety. Respondents with higher perceived cooperating teachers' TE had higher GTE. Respondents with high teaching anxiety had significantly lower personal TE. (Contains 13 references.) (SM)

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Effects of Early Field Experiences on Preservice Teachers' Efficacy Beliefs--A Pilot Study

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INTRODUCTION AND OBJECTIVES

Efficacy beliefs influence how much effort people put forth, how long they will persist in the face of obstacles, and how resilient they are in dealing with failure (Bandura, 1977). Therefore, the development of teacher efficacy beliefs among prospective teachers has generated a great deal of research interest (Pajares, 1992, 1996; Tschannen-Moran, Hoy, & Hoy, 1998). Furthermore, research studies in teacher education consistently show that professional experiences such as field experiences are effective in shaping professional beliefs and practices (Fry & Mckinney, 1997; McIntyre & Byrd, 1996; Smith, 1997). However, little research has been done to investigate the effects of early field experiences on preservice teachers' efficacy beliefs.

The primary purpose of this study is to investigate the effects of early field experiences on preservice teachers' efficacy beliefs--a cognitive process in which teachers construct beliefs about their capacity to help students learn. The secondary purpose of the study is to explore the effects of early field experiences

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on preservice teachers' teacher efficacy beliefs in terms of their early field experience ratings, their perceived cooperating teachers' teacher efficacy beliefs, and their teaching anxiety levels.

THEORETICAL FRAMEWORK

This study grounds its theoretical framework on Bandura's self-efficacy theory. Bandura (1977) identified self-efficacy as a cognitive process in which people construct beliefs about their capacity to perform at a given level of attainment. Based on Bandura's self-efficacy theory, Gibson and Dembo (1984) defined teacher efficacy as the conviction that one can successfully bring about a desired outcome in one's students. According to these theorists, a teacher's sense of efficacy (TE) consists of two independent dimensions: sense of general teaching efficacy (GTE) referring to teachers' expectations that their instruction can influence student learning, and sense of personal teaching efficacy (PTE) referring to individuals' assessment of their own teaching competency. Teacher expectations are integrated from these two dimensions into a course of action (Gibson and Dembo, 1984).

Bandura (1977, 1986) postulated four sources of self-efficacy information: (a) actual experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) emotional arousal. According to Bandura (1977, 1986), the perception that performance has been successful raises efficacy beliefs while the perception that performance has been unsuccessful lowers efficacy beliefs. Vicarious experience is another important source of teacher efficacy. Watching others teach provides

impressions about the nature of the teaching task. For example, through observing cooperating teachers teaching, one begins to decide whether teachers can really make a difference (Tschannen-Moran, Hoy, & Hoy, 1998). By the same token, listening to and interacting with cooperating teachers also influences preservice teachers' efficacy beliefs. Finally, the level of emotional arousal a person experiences in a teaching situation adds to self-perceptions of teaching competence (Tschannen-Moran, Hoy, & Hoy, 1998). Feelings of relaxation and positive emotions signal self-assurance and the anticipation of future success; feelings of anxiety and stress signal self-defeat and the anticipation of future failure (Bandura, 1977).

METHODS

Participants

Participants for this research consisted of 52 (M=6; F=46) sophomore level undergraduate students majoring in Elementary Education and Early Childhood Education in a western Pennsylvania university. The participants were registered in ED 242 Pre-student Teaching Clinical Experience I in the Spring of 1999, a required course for all students majoring in education. All students registered were randomly assigned to two local elementary schools. Participants were bused to the designated schools as a cohort with university supervisors every other week for one half day during the semester, working in conjunction with one classroom teacher. There were a total of six field experience trips.

Instruments

Four instruments were employed in the study: (a) the Teacher Efficacy Scale (Hoy & Woolfolk, 1998), (b) the Teaching Anxiety Scale (Cooperstein, 1981), (c) the Perceived Cooperating Teachers' Efficacy Scale, a modification of the Teacher Efficacy Scale, and (d) a self-designed Field Experience Rating Scale. In addition, the information about students' demographic backgrounds was also collected. The Teacher Efficacy Scale measured teacher efficacy (TE) in terms of general teacher efficacy (GTE) and personal teacher efficacy (PTE). The reliability coefficients for PTE and GTE are .77 and .72 respectively. The Teaching Anxiety Scale assessed participants' level of teaching anxiety. Its reliability coefficient is .83. The Early Field Experience Rating Scale was a self-constructed instrument to let participants assess their early field experiences. Its reliability coefficient is .90.

Procedures

At the beginning of Spring Session, 1999, the research project was introduced to the preservice teachers in the course. Those students who agreed to participate in the study were asked to complete the Teacher Efficacy Scale, the Teaching Anxiety Scale, and a demographic background information sheet for pretest data collection. At the end of Spring Session, 1999, all participants were asked to complete the Teacher Efficacy Scale, the Perceived Cooperating Teachers' Teacher Efficacy Scale, and the Early Field Experience Rating Scale for posttest data collection.

Data Analyses

In this research, the following analyses were done:

1. T-test for paired sample procedures were run to test the differences between preservice teachers pre- and post- TE, GTE, and PTE.

2. Three-way ANCOVA procedures were run to test the differences in preservice teachers' post- TE, GTE, and PTE in terms of their early field experience ratings, their perceived cooperating teachers' teacher efficacy, and their teaching anxiety.

3. Post hoc Scheffé statistical procedures were run when there were significant differences in the results of three-way ANCOVA procedures.

RESULTS

1. T-test for paired sample procedures showed that there were significant differences ($P < .05$) in preservice teachers' general teaching efficacy beliefs and personal teaching efficacy beliefs after their early field experiences. Preservice teachers' post general teaching efficacy scores ($M=17.85$) were significantly lower than their pre-test scores ($M=19.92$) whereas preservice teachers' post personal teaching efficacy scores ($M=25.00$) were significantly higher than their pre-test scores ($M=23.42$).

2. Three-way ANCOVA procedures showed that there were significant differences ($p < .05$) in preservice teachers' post personal teaching efficacy beliefs between the preservice teachers with high early field experience

ratings and those with low ratings. Post hoc Scheffè indicated that the preservice teachers with high early field experience ratings had higher post personal teaching efficacy scores (M=26.14) whereas the preservice teachers with low early field experience ratings had lower post personal teaching efficacy scores (M=23.67).

3. Three-way ANCOVA procedures also showed that there were significant differences ($p < .05$) in preservice teachers' post general teaching efficacy beliefs between the preservice teachers with high perceived cooperating teachers' efficacy beliefs and those with low perceived cooperating teachers' efficacy beliefs. Post hoc Scheffè indicated that the preservice teachers with high perceived cooperating teachers' efficacy beliefs had higher general teaching efficacy scores (M=19.56) whereas the preservice teachers with low perceived cooperating teachers' efficacy beliefs had lower general teaching efficacy scores (M=16.00).

4. Finally, three-way ANCOVA procedures showed that there were significant differences ($p < .05$) in preservice teachers' personal teaching efficacy beliefs between high teaching anxiety and low teaching-anxiety preservice teachers. Post hoc Scheffè showed that the high teaching anxiety preservice teachers had significantly lower personal teaching efficacy scores (M=40.54) whereas low teaching anxiety preservice teachers had significantly higher personal teaching efficacy scores (M=45.04). There were no interactions among the variables.

DISCUSSION AND CONCLUSIONS

The results of this study indicate an interesting phenomenon: After early field experiences, preservice teachers' general teaching efficacy was significantly lower whereas their personal teaching efficacy was significantly higher. These findings are consistent with the research by Hoy and Woolfolk (1990) who found that actual teaching experiences during student teaching practica have a greater impact on personal teaching efficacy whereas general teaching efficacy show a decline during student teaching. The findings indicate that the optimism of preservice teachers may be somewhat tarnished when they are confronted with the realities and complexities of real teaching task.

This study also found a relationship between preservice teachers' teacher efficacy beliefs and their early field experience settings, their perceived cooperating teachers' teacher efficacy beliefs, and their teaching anxiety. For example, the results of the study showed that the preservice teachers with high early field experience ratings had higher personal teaching efficacy (PTE) whereas the preservice teachers with low early field experience ratings had lower general teaching efficacy (GTE). This supports the research by Bandura (1997) that suggests that one's perception that performance had been successful raise efficacy beliefs while the perception that performance has been unsuccessful lowers efficacy beliefs.

Results of this study also showed that the preservice teachers with high perceived cooperating teachers' teacher efficacy (TE) had higher general teaching efficacy (GTE) whereas preservice teachers with low perceived cooperating teachers' teacher efficacy had lower general teaching efficacy (GTE). This finding adds credence to research findings that cooperating teachers have more influence on the attitudes and beliefs of preservice teachers than do their university or college supervisors (Borko & Mayfield, 1995; Calderhead, 1988).

Finally, this study indicated that preservice teachers with high teaching anxiety had significantly lower personal teaching efficacy whereas those with low teaching anxiety had significantly higher personal teaching efficacy. These findings are consistent with previous findings that the level of emotional arousal a person experiences in a teaching situation adds to self-perceptions of teaching competence (Tschannen-Moran, Hoy, & Hoy, 1998).

Due to the nature of the subject selection, implications of the present study are particular to the preservice teachers who participated in the study. However, the demographics of respondents are similar to many preservice teachers, especially those from rural state universities; therefore, the findings might be generalizable to similar teacher education programs. Based upon these findings, the following recommendations for teacher preparation programs are made:

1. Provide preservice teachers with field experiences as early as possible in order to build a bridge between theory and practice, ideology and reality.

2. Place preservice teachers in schools with high efficacy teachers to enhance preservice teachers' teacher efficacy. Teacher educators may fulfil this task by carefully choosing competent cooperating teachers as role models.

3. Diagnose preservice teachers' teaching anxiety level before field experiences so university supervisors and cooperating teachers may provide extra help for high teaching-anxiety preservice teachers.

In summary, a great understanding of the factors that facilitate or inhibit the development of efficacy beliefs among teachers across stages of their careers would be valuable (Tschannen-Moran, Hoy, & Hoy, 1998). This study investigated the effects of an early urban field experience on preservice elementary teachers' efficacy beliefs with the hope to find better ways of preparing preservice teachers to work effectvely with diverse background students. This study did reveal some of the effects of early field experiences on preservice teachers' teacher efficacy beliefs; however, due to its small sample and limited duration, further studies with larger samples and greater longevity are called for.

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